



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/750,464	12/28/2000	Michael S. Borella	00-683	6594
20306	7590	12/29/2004	EXAMINER	
MCDONNELL BOEHNEN HULBERT & BERGHOFF LLP			HAN, CLEMENCE S	
300 S. WACKER DRIVE			ART UNIT	
32ND FLOOR			PAPER NUMBER	
CHICAGO, IL 60606			2665	

DATE MAILED: 12/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/750,464	Applicant(s) BORELLA ET AL.	
	Examiner Clemence Han	Art Unit 2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 August 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5, 7-13 and 15-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-13 and 15-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. Responsive to amendment received on August 19, 2004, amended claims 1-3, 7, 8, 10-13, 15 and new claims 16-21 are entered as requested and claim 6 and 14 are canceled as requested.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 19 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. Claim 19 recites the limitation "said care-of address station" in line 1. There is insufficient antecedent basis for this limitation in the claim.
5. Claim 20 recites the limitation "said first care-of address" in line 1. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 103***

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claim 1-5, 7-13 and 15-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Neves et al. (US 6,691,227) in view of Xu (US Pub 2002/0038339).

Regarding claim 1, Neves teaches a method for address management of mobile nodes, said method comprising the steps of: receiving a registration request message from a first mobile node 330 (Column 11 Line 58-65); and assigning a unique port numbers to said first mobile node (Column 12 Line 43-49). Neves, however, does not teach assigning a first range of globally unique port numbers to said first mobile node. Xu teaches assigning a first range of globally unique port numbers to said first mobile node [0143]. It would have been obvious to one skilled in the art to modify Neves to assign a range of globally unique port numbers as taught by Xu in order to accommodate more application [0140].

Regarding claim 2, Xu teaches transmitting said first range of globally unique port numbers to said first mobile node (Step 16 in Figure 9A).

Regarding claim 3, Neves teaches assigning a network address to said first mobile node (Column 12 Line 44-45). Neves, however, does not teach transmitting said network address and said first range of globally unique port numbers to said first mobile node. Xu teaches transmitting said network address and said first range of globally unique port numbers to said first mobile node (Step

16 in Figure 9A). It would have been obvious to one skilled in the art to modify Neves to assign a range of globally unique port numbers as taught by Xu in order to accommodate more application [0140].

Regarding claim 4, Neves teaches said network address is an Internet Protocol (IP) address (Column 6 Line 12).

Regarding claim 5, Neves teaches said network address can be shared with a second mobile node (Column 12 Line 54-56).

Regarding claim 7, Neves teaches assigning a unique port numbers to mobile node (Column 12 Line 43-49). Neves, however, does not teach assigning a second range of globally unique port numbers to said second mobile node, wherein said first and second ranges are disjoint. Xu teaches assigning a second range of globally unique port numbers to said second mobile node, wherein said first and second ranges are disjoint [0143]. It would have been obvious to one skilled in the art to modify Neves to assign a range of globally unique port numbers as taught by Xu in order to accommodate more application [0140].

Regarding claim 8, Neves teaches assigning a unique port numbers to mobile node (Column 12 Line 43-49). Neves, however, does not teach said first range of globally unique port numbers is defined by a low port number and a high port number, said method further comprising the step of: transmitting a registration

reply message to said first mobile node, said registration reply message including a port range extension, said port range extension including said low port number and said high port number. Xu teaches said first range of globally unique port numbers is defined by a low port number and a high port number, said method further comprising the step of: transmitting a registration reply message to said first mobile node (Step 16 in Figure 9A), said registration reply message including a port range extension, said port range extension including said low port number and said high port number [0143].

Regarding claim 9, Neves teaches said registration request message includes a care-of address for said first mobile node (FAM field in Figure 4).

Regarding claim 10, Neves teaches associating said care-of address with said first range of globally unique port numbers (Column 13 Line 31-33).

Regarding claim 11, Neves teaches assigning a network address to said first mobile node (Column 12 Line 44-45); and associating said care-of address with said network address and unique port numbers (Column 13 Line 31-33). Neves, however, does not teach a first range of globally unique port numbers. Xu teaches a first range of globally unique port numbers [0143]. It would have been obvious to one skilled in the art to modify Neves to assign a range of globally unique port numbers as taught by Xu in order to accommodate more application [0140].

Regarding claim 12, Neves teaches receiving data packets destined for said network address and a port number in said first range of globally unique port numbers; and forwarding said data packets to said care-of address (Column 14 Line 39-42).

Regarding claim 13, Neves teaches A system for address management of mobile nodes, said mobile nodes including at least a first mobile and a second mobile node, said system comprising: a home agent 310, said home agent transmitting registration reply messages in response to valid registration request messages (Figure 3); and a home agent database (HAM Translation Record in Figure 3) accessible by said home agent, said home agent database containing at least a first data record and a second data record, said first data record identifying a first network address and a first unique port numbers for said first mobile node, said second data record identifying said network address and a second unique port numbers for said second mobile node (Column 8 Line 1-17). Neves, however, does not teach using sets of globally unique port numbers wherein they are disjoint. Xu teaches using sets of globally unique port numbers wherein they are disjoint. It would have been obvious to one skilled in the art to modify Neves to assign a range of globally unique port numbers as taught by Xu in order to accommodate more application [0140].

Regarding claim 15, Neves teaches said first data record includes a first care-of address for said first mobile node, said first care-of address being different from said first network address (Column 8 Line 1-17).

Regarding claim 16, Neves teaches said network address is an Internet Protocol (IP) address (Column 6 Line 12).

Regarding claim 17, Neves teaches a foreign agent 340, coupled to said home agent 310 via an intermediate network; and a foreign agent database (FAM Translation Record in Figure 3) accessible by said foreign agent, said foreign agent database containing a visitor data record for said first mobile node, said visitor data record including said network address and said unique port numbers for said first mobile node (Figure 4). Neves, however, does not teach a first range of globally unique port numbers. Xu teaches a first range of globally unique port numbers [0143]. It would have been obvious to one skilled in the art to modify Neves to assign a range of globally unique port numbers as taught by Xu in order to accommodate more application [0140].

Regarding claim 18, Neves teaches said visitor data record includes a local address of said first mobile station (Client field in Figure 4).

Regarding claim 19, Neves teaches said care-of address station is an Internet Protocol (IP) address (Column 6 Line 12).



Regarding claim 20, Neves teaches said first care-of address is an external IP address associated with said foreign agent (FAM field in Figure 4).

Regarding claim 21, Neves teaches said visitor data record includes an IP address of said home agent (Masquerade field in Figure 4).

### ***Response to Arguments***

8. Applicant's arguments with respect to claim 1-5, 7-13 and 15 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however,

will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents are cited to further show the state of the art with respect to the invention in general.

U.S. Pub. 2002/0080752 to Johansson et al.

U.S. Patent 6,496,893 to Arai

U.S. Patent 6,058,431 to Srisuresh et al.

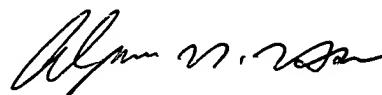
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clemence Han whose telephone number is (571) 272-3158. The examiner can normally be reached on Monday-Thursday 7 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Clemence Han  
Examiner  
Art Unit 2665



ALPUS H. HSU  
PRIMARY EXAMINER